Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

Minor Revision to Title V permit, No. V-98-030
Corning Incorporated
680 East Office Street, Harrodsburg, Kentucky 40330
November 30, 1999
Completed by: Bryan Handy

SOURCE DESCRIPTION, CONTROL EQUIPMENTS & CONSTRUCTION DATE:

This source produces ophthalmic glass and advanced display products (ADP). Arsenic is used as a raw material for some of the glass production. All glass melting furnaces are equal to or less than 21 mmBTU/hour. Due to an increased demand in the ADP sector Corning has requested to increase throughput capacity of non arsenic glass in emission unit 03 (experimental glass melting furnace) from 0.025 tons/hour pull glass to 0.05 tons/hour pull glass. Additionally, a request to construct three new glass melting furnaces has been submitted. One unit will be a 21 mmBTU/hr natural gas fired furnace with a process rate of 1.37 tons/hour glass pull. The remaining two units will be 10.5 mmBTU/hr natural gas fired furnaces with process rates of 0.684 tons/hour glass pull each. These new furnaces will be emission units 10 (T135), 11 (T136), and 12 (T137) with construction scheduled to commence December 2000, April 2000, and December 1999 respectively. Corning has also submitted a proposal to replace an existing baghouse. The baghouse for emission units 05, 06, 07, 08, 10, 11, and 12 will be replaced with a new unit, with an arsenic control efficiency of 85% and a particulate control efficiency of 90%. Installation of this unit is scheduled to begin during June of 2000 and operation is scheduled for November of 2000.

EMISSION UNITS

Emissions Unit 02: New Operations for Raw Materials Handling (Revision)

Machine Point	Description	Commenced operation	Operating rate
09	Loading into ADP tanks equipped with building enclosure	1989	5.32 ton/hour

Emissions Unit 04: Glass Melting Tank (T133) (Revision)
Experimental glass melting furnace; rated 0.5 mmBTU/hour; natural gas/propane fired
Construction commenced: January 1986
Control equipment: Baghouse
Processing rate: 0.025 ton/hour arsenic glass pull
0.05 ton/hour arsenic free glass pull

EMISSION UNITS (continued)

Emissions Unit 10 (67): Glass Melting Tank (T135)
(New)
Glass melting furnace; rated 21 mmBTU/hour; natural gas/propane fired
Proposed Construction Commence Date: December 2000
Control equipment: Baghouse, spray cooler and excess air burner
Processing rate: 1.37 ton/hour glass pull

Emissions Unit 11 (68): Glass Melting Tank (T136)
(New)
Glass melting furnace; rated 10.5 mmBTU/hour; natural gas/propane fired
Proposed Construction Commence Date: April 2000
Control equipment: Baghouse, spray cooler and excess air burner
Processing rate: 0.684 ton/hour glass pull

Emissions Unit 12 (69): Glass Melting Tank (T137)
(New)
Glass melting furnace; rated 10.5 mmBTU/hour; natural gas/propane fired
Proposed Construction Commence Date: December 1999
Control equipment: Baghouse, spray cooler and excess air burner
Processing rate: 0.684 ton/hour glass pull

REGULATION APPLICABILITY:

All the applicable regulations to the emission units are listed in the permit. The following regulations are not applicable based on the applicability of the regulations, applicability dates, and/or commencement dates:

Regulations not applicable to emissions units 02:

Regulation 401 KAR 61:020, Existing process operations, applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulate, commenced before July 2, 1975, due to applicability dates.

Regulations not applicable to emissions unit 04:

Regulation 401 KAR60:005, which incorporates by reference the Federal Regulation 40 CFR 60, Subpart CC, Standards of performance for glass manufacturing plants.

COMMENTS:

This permit does not impose any emission cap on any of the revised or new emissions units.

For emissions points 02 and 04, the permittee may assure continuing compliance with the particulate mass and opacity standard by proper operation of the baghouses. Proper operation of the baghouses can be ensured by conducting weekly visual observation as described in the permit.

Particulate, arsenic and visible emissions as measured by applicable methods referenced in Regulation 401 KAR 50:015, shall not exceed the respective limitations specified in the permit.

The permittee has proposed an alternate operating scenario for emission unit 04 and a description change. The processing rate while producing arsenic free glass (G glass) in emission unit 04 will be increased from 0.025 tons/hour glass pull to 0.05 tons/hour glass pull in the emission unit description.
(G glass corresponds to arsenic free glass)

Two arsenic limitations have been provided based on the type of glass being produced. Due to the low arsenic content of F/G glass, 85% reduction can not be effectively measured. Federal Regulation 40 CFR 60.162(b)(1) will apply while producing F/G glass. Federal Regulation 40 CFR 61.162(b)(2) will apply while producing F glass.
(F/G glass corresponds to total glass production that produces arsenic emissions < 0.4 Mg/yr)
(F glass corresponds to total glass production that produces arsenic emissions > 0.4 Mg/yr)

The permittee shall conduct an emission test as described in Regulation 40 CFR 61:164(e) on each control device to demonstrate compliance with the percent reduction requirements of inorganic arsenic emissions while operating all glass melting tanks associated with each control device being tested, within one (1) year of initial startup of all new melting tanks (Emission Units 10, 11, and 12).

The permittee shall determine the opacity and temperature value following the procedure as described in Regulation 40 CFR 61.163(c) during the emission test.

The permittee shall conduct a performance test to demonstrate compliance with the particulate emission standard while operating all glass melting tanks associated with each control device being tested, within one (1) year of initial startup of all new melting tanks (Emission Units 10, 11, and 12).

The permittee may assure continuing compliance with the particulate standard for emissions units 05, 06, 07, 08, 10, 11, and 12 by operating the process and control equipments such that opacity of emissions measured by the COM will not exceed the opacity limit developed during the stack test.

COMMENTS (CONTINUED)**:**

The permittee shall conduct a performance test to establish emission factor data to calculate NOx emissions while operating each new glass melting tank connected in accordance with General Condition G(d)5 of the permit.

This revised permit is the proposed permit under the Title V program and shall become the final Title V permit unless EPA files an objection pursuant to Regulation 50:035, section 21(3).

A thorough analysis has been made of all relevant information available which pertains to this application. The Division has concluded that the source will comply with all applicable air quality regulations and requirements. Compliance with the terms of the permit will ensure compliance with all air quality requirements. Therefore, it is recommended that the permit be issued as conditioned.